

INTERNATIONAL SEARCH REPORT

 International Application No
 PCT/EP2005/002601

 A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04R1/22 H04R1/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04R H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 347 302 A (NIPPON ELECTRIC CO) 30 August 2000 (2000-08-30) abstract page 5, line 5 - line 24 page 8, line 9 - line 24; figures 1,2,5,6	1-7
X	US 6 064 894 A (ZUREK ROBERT A ET AL) 16 May 2000 (2000-05-16) abstract	1,2
A	column 1, line 66 - column 2, line 60 column 3, line 11 - line 48 column 4, line 7 - line 26; figures 1,2,6	3-7
A	US 6 104 808 A (ALAMEH RACHID M ET AL) 15 August 2000 (2000-08-15) cited in the application abstract; figures 2-4	1-3
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

31 May 2005

Date of mailing of the international search report

06/06/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 473 625 B1 (MERCER JOHN ET AL) 29 October 2002 (2002-10-29) abstract column 3, line 54 - line 65 -----	6
A	US 4 228 379 A (GUSCOTT JOHN K ET AL) 14 October 1980 (1980-10-14) column 3, line 44 - line 48 -----	7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/002601

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2347302	A	30-08-2000	JP 3266132 B2	18-03-2002
			JP 2000244618 A	08-09-2000
			CN 1264995 A ,C	30-08-2000
			US 6678504 B1	13-01-2004
US 6064894	A	16-05-2000	GB 2337395 A ,B	17-11-1999
US 6104808	A	15-08-2000	NONE	
US 6473625	B1	29-10-2002	GB 2333004 A	07-07-1999
			AU 2161199 A	26-07-1999
			WO 9935880 A1	15-07-1999
			EP 1044582 A1	18-10-2000
			JP 2002501357 T	15-01-2002
US 4228379	A	14-10-1980	DE 2934663 A1	13-03-1980
			GB 2029160 A ,B	12-03-1980
			IT 1125948 B	14-05-1986
			JP 1494280 C	20-04-1989
			JP 55063197 A	13-05-1980
			JP 63040400 B	10-08-1988